September 2000

POINT-TO-POINT

Technical Product News from International Game Technology Vol. 7 No. 2

SENET System Challenges

Ever seen this one? A "Meters Disconnected" or "Coin-in Jam" error message appears on an 80960 machine (Game King, Vision or S2000). You check out both the meter and coin-in subsystems. Everything looks okay, but the error message won't go away. What's up?

Both the meters and the coin-in referred to in the "Meters Disconnected" or "Coin-in Jam" error messages on 80960 machines are simple I/Os (inputs and outputs) associated with the SENET system. The SENET system (Synchronous Expansion Network) is responsible for most of the simple I/Os in 80960 machines.

If the SENET system has a problem in any of its various components, it can become frozen. If that happens, the system typically responds by reporting one of the previously noted error messages. You may solve this problem if you're working with a Vision or S2000 machine by replacing the 7-segment display. We've certainly seen 7-segment displays damaged by "hot swapping" internal components. (See the December 1999 issue of *Point-to-Point* for more on this scenario.)

But what if it's not the 7-segment display? Check the appropriate electronics documentation for the machine on which you are working. The schematics will show what other simple I/Os are part of the machine's SENET system. Some of the other possible I/Os to check to correct the problem and eliminate the error message:

Bell	Hopper	SENET I/O Cards
Candle	Lockout	Player Panel Switches
Handle	Reels	and Lamps

Technical Training in Full Swing

IGT Technical Training introduced its university-based machine training concept, IGT University (IGTU), in April 2000. With the launch of 10 certificate programs, customized training courses, and additional advanced-level coursework being developed, IGTU is in full swing.

IGTU courses are developed to:

1. Offer top-quality, hands-on training
2. Meet current and future customer needs
3. Lay the foundation for IGTU certificate programs

Each certificate program begins with the "core" classes – the foundation for all IGTU certificate programs. Core classes must be passed with a score of 75 percent or better to progress to advanced-level courses.

Students who complete the recommended course of study and successfully pass a comprehensive exam receive IGTU program certification.

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Make Your Point!

Does *Point-to-Point* hit the mark for you? IGT wants to know what you think.

Fill out the enclosed survey and drop it in the mail – no postage needed. Rather use the Internet? You'll find it in this issue of *Point-to-Point* under "Newsletters" at IGT Products **(www.igtproducts.com)**.

Online Update

IGT.com Goes Live

Attention! Reach IGT's Online Web site via IGT.com. And coming soon – a new look to go with our new address.

What's new on IGT Products (www.igtproducts.com):

- Game Conversion Worksheets – Forms to get your game conversion orders processed as quickly and efficiently as possible. Just fill out the form and fax it to IGT Customer Service.
- IGT Training – New classes and schedules
- Hot Tip: Watch for more information regarding IGT's coolest systems – EZ Pay and IGS.

As always, find the latest CNs, PAR sheets, PSRs, game library information and technical documentation there, too.

Tips for Techs *Correcting Brownouts in AC Secure Count Hoppers*

In areas where AC power is unstable, the AC secure count hopper board (IGT p/n 769-223-00) may malfunction, causing a nuisance machine tilt. Replacing the microprocessor with an equivalent microprocessor with brownout protection will correct the problem.

Parts Required:

Programmed microprocessor (IGT p/n 327-054-01)

Nylon screw (IGT p/n 413-004-91)

Tools Required:

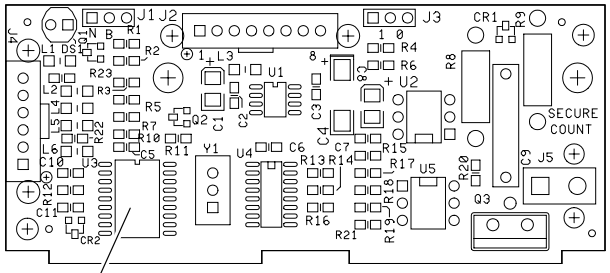
Surface-mount repair station

***Note:** This procedure must be performed at a static-controlled workstation.*

Procedure:

1. Remove the existing PCB (IGT p/n 769-223-00) from the hopper assembly.
2. Remove the surface-mount microprocessor (IGT p/n 327-054-00) and replace it with the pre-programmed microprocessor (IGT p/n 327-054-01). See illustration.
3. Reinstall the modified PCB in the hopper. For added safety, replace the screw near J5 connector with nylon screw.
4. Test the hopper to verify proper operation.

***Caution:** Certain gaming jurisdictions require specific approvals from independent testing laboratories such as UL, CSA or CE. The modification described below will result in the machine no longer being in compliance with UL, CSA or CE certifications. IGT is making every effort to secure such approvals in those jurisdiction. Under no circumstances shall the procedure listed below be implemented in those jurisdictions until the appropriate approvals are secured.*



Correct Position for Secure Count Hopper Jumper Pins

PCB – AC Secure Count Hopper(IGT p/n 769-223-01)
- 1 Bowl Probe
  - Escalator and Holeywheel Hoppers
    - J1 – jumper pins 2 and 3
    - J3 – jumper pins 2 and 3
  - Side-Eject Hoppers
    - J1 – jumper pins 2 and 3
    - J3 – jumper pins 1 and 2
- 3 Bowl Probes
  - Escalator and Holeywheel Hoppers
    - J1 – jumper pins 1 and 2
    - J3 – jumper pins 2 and 3
  - Side-Eject Hoppers
    - J1 – jumper pins 1 and 2
    - J3 – jumper pins 1 and 2

PCB – DC Secure Count Hopper (IGT p/n 769-225-04)
- 1 Bowl Probe
  - Escalator and Holeywheel Hoppers
    - J2 – jumper pins 2 and 3
    - J3 – jumper pins 2 and 3
  - Side-Eject Hoppers
    - J2 – jumper pins 2 and 3
    - J3 – jumper pins 1 and 2
- 3 Bowl Probes
  - Escalator and Holeywheel Hoppers
    - J2 – jumper pins 1 and 2
    - J3 – jumper pins 2 and 3
  - Side-Eject Hoppers
    - J2 – jumper pins 1 and 2
    - J3 – jumper pins 1 and 2

Secure Count Hoppers – Frequently Asked Questions

Q. What would indicate that the hopper driver board jumper pins are incorrectly installed?

If the machine does NOT have firmware to support the secure count hopper, the probe jumper is in the wrong position if:

- The game will not divert coins properly;
- The Hopper Full input does not toggle when using self-test for inputs.

If the machine DOES have firmware to support the secure count hopper, the probe jumper is in the wrong position if:

- The machine acts as if there is a non-secure count hopper installed;
- The machine diverts coins properly but errors are not displayed;
- The Hopper Full input does not toggle when using self-test for inputs.

The type jumper is set up incorrectly in a side-eject hopper if:

- You can run a coin backwards through the optics and DON'T get a # 2 tilt (this indicates the type jumper is set up for an escalator hopper).

Q. How do I know that this IGT machine is set up correctly for a one-probe bowl (non-secure count) or a three-probe bowl (secure count)?

(continued on page 5)

Customer Notifications: April 2000 – July 2000

CN No.	CN Subject	Effective Date	Jurisdictions
1825	Firmware Replacement: Poker upgrades; PE-Plus	5/10/00	CO
1922	Field Service Procedure: AC/DC Side-Eject Hopper Secure Count retrofit; Upright machines	5/15/00	All Gaming
1978	**MANDATORY** – Firmware Replacement: Change in variations in reel component tolerances; S-Plus	7/12/00	IL,IN,MS
2013	Firmware Enhancement: Improvements to text characters in Vacuum Fluorescent Display (VFD); All games fitted with VFD	6/6/00	PERU
2086	Field Service Procedure: Write strobe enable error; Game King (80960) video processor boards (IGT p/n 757-039-02 and 757-039-03)	5/8/00	ALB,AZI,CO,DEL,IA,IAI,IL, IN,KSI,LA,LAI,MI,MII,MNI, MO,MS,MSI,MT,NDI,NJ, NMI,NM,NV,ORI,RIL,SD, SDI,SWED,WII,WVL
3017	**MANDATORY** – Firmware Replacement: Change in hand-pay conditions; Winner's Choice Multi-Game	4/18/00	NM
3024	Firmware Replacement: Adds capability for WBA-12 or WBA-13 bill acceptors to read barcodes in conjunction with EZ Pay Ticket System; Game King and Vision machines	5/3/00	MS
3050	**MANDATORY** – Firmware Replacement: Change in method of deducting credits as coins are dispensed; Game King	7/10/00	AZI,BUENO,CO,CTI,IA,IAI, ICE,IGTE,IL,IN,IAI,KSI,LA, LAI,LALB,MI,MII,MNI,MO, MS,MSI,NDI,NMI,NV, ORI,SD,SDI,WII
3052	Firmware Replacement: Additions to help text for Joker Poker; Game King Multi-Play Joker Poker	6/28/00	AZI,CO,CTI,IA,IAI,IN,KSI,LA, LAI,LALB,MII,MO,MS,MSI, MNI,NDI,NMI,ORI,SD, SDI,WII
3059	Firmware Replacement: Further clarification on Super 8 Bonus game; Game King Multi-Games	7/24/00	AZI,CTI,KSI,LA,LAI,LALB,MII, MNI,MO,MSI,NDI,NMI,NV,WII
3065	Field Service Procedure: Brownout protection for AC secure count hopper board (IGT p/n 327-054-00)	6/12/00	ALL
3067	New Documentation: Mechanical Parts: Game King 19" Upright with Hopper or Printer; IGT p/n 821-301-00	4/3/00	ALL
3075	**MANDATORY** – Firmware Replacement: Changes to Super Bonus Keno; Winner's Choice Multi-Play Keno	5/2/00	MT
3078	Firmware Replacement: Change in coin-out meter recording during Wild Flower bonus; Game King	4/24/00	BUENO
3079	**MANDATORY** – Firmware Replacement: Paytable and help text updates for Leopard Spots II; Game King	6/6/00	AZI,CTI,IA,IAI,MNI,MSI, NDI,SD,SDI,WII
3081	New Documentation: Release of 80960 Tester Operator's Manual (IGT p/n 821-333-01)	6/13/00	ALL
3082	**MANDATORY** – Field Service Procedure: Addition of monitor support pins; Game King 19" Slant-top	5/5/00	ALL
3084	Firmware Replacement: Paytable replacement for Ten Times Pay; S-Plus	5/2/00	CO

Customer Notifications (CNs) are listed to inform IGT customers of product changes. CNs are available on IGT's technical Web site, IGT Products **(www.igtproducts.com)**.

Customer Notifications: April 2000 – July 2000

CN No.	CN Subject	Effective Date	Jurisdictions
3085	Field Service Procedure: Firmware replacement and recalibration for new $5 and $10 U.S. treasury notes; WBA-12-SS and WBA-13-SS bill acceptors	6/21/00	AZI,BAH,CO,CTI,DEL,IA,IAI, IL,IN,KSI,LA,LAI,LALB,MI, MII,MNI,MO,MS,MSI,NCI, NDI,NJ,NM,NMI,NV,ORI, PR,SD,SDI,WII
3086	Field Service Procedure: Firmware replacement and recalibration for new $5 and $10 U.S. treasury notes; WBA-10-SS and WBA-11-SS bill acceptors	6/21/00	AZI,BAH,CO,CTI,DEL,IA,IAI, IL,IN,KSI,LA,LAI,LALB,MI, MII,MNI,MO,MS,MSI,MT, MTI,NCI,NDI,NM,NMI,NV, ORI,RIL,SD,SDI,WII,WVL
3087	Field Service Procedure: Firmware replacement and recalibration for new $5 and $10 U.S. treasury notes; DBV-145-SS bill acceptors; S-Plus and PE-Plus	6/15/00	AZI,CO,CTI,DEL,IA,IAI,IL, KSI,LA,LAI,LALB,MI,MII,MNI, MO,MS,MSI,NCI,NDI,NJ,NM, NV,ORI,PR,SD,SDI,WII
3088	Field Service Procedure: Firmware replacement and recalibration for new $5 and $10 U.S. treasury notes; DBV-147-SS and DBV-147-SH bill acceptors; Game King	6/9/00	AZI,BAH,CO,CTI,DEL,IA,IAI, IL,IN,KSI,LA,LAI,LALB,MI, MII,MNI,MO,MS,MSI,NCI, NDI,NJ,NM,NMI,NV, ORI,PR,SD,SDI,WII
3085	Field Service Procedure: Firmware replacement and recalibration for new $5 and $10 U.S. treasury notes; DBV-200 bill acceptors;	6/15/00	AZI,CO,CTI,DEL,IA,IAI,IL,IN, KSI,LA,LAI,LALB,MI,MII,MNI, MO,MS,MSI,NCI,NDI,NM, NMI,NV,ORI,PR,SD,SDI,WII
3090	**MANDATORY** – Firmware Replacement: Change in credit meter and credit button features; Player's Edge-Plus	5/2/00	MNI,ORI
3091	**MANDATORY** – Field Service Procedure: Damper retrofit for top panel; Game King 19" Slant-top	1/29/00	ALL
3092	**MANDATORY** – Firmware Replacement: Changes by NGCB in meter readings requirements for bonus wheel; Vision bonus wheel	5/3/00	NV
3094	**MANDATORY** – Firmware Notification: Potential lock-up with SP1085; S-Plus game type 2/21	5/10/00	ALL
3095	**MANDATORY** – Firmware Replacement: Upgrade and recalibration for new $5 and $10 U.S. treasury notes; Mars bill acceptor	6/21/00	NJ
3096	Field Service Procedure: Firmware replacement and recalibration for new $5 and $10 U.S. treasury notes; Mars ZT1102 and Mars ZT1202 bill acceptors	6/30/00	CTI,MS,NV
3097	Firmware Advisory: CDG requirements for maximum bets in single-denomination games; Game King	6/6/00	CO
3098	**MANDATORY** – Firmware Replacement: Change in meter recording requirements by NGCB; S-Plus Limited game type 43	5/30/00	NV
3103	**MANDATORY** – Firmware Replacement: Correction of evaluation by machine of hand-pay status; Player's Edge-Plus Euro Poker	7/3/00	IGTE,PL
3106	Product Advisory: All possible paytable symbols are not achievable when game is in tournament mode; S-Plus game type 14	6/19/00	ONT
3107	New Documentation: Release of PE-Plus IBA 13" Upright Electronics manual (IGT p/n 821-231-04); Player's Edge-Plus 13" Upright	6/19/00	ALL

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Technical Training

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Core technical classes currently offered:

MT 101 – Product Overview

MT 102 – Machine Overview

MT 301 – 8032 Machine Floor Operations

MT 310 – 80960 Machine Floor Operations

MT 401 – 8032 Service and Troubleshooting

MT 410 – 80960 Service and Troubleshooting

EZ 500 – EZ Pay Hardware

Advanced-level classes offered Fall 2000:

EZ 314 – EZ Pay Machine Floor Operations

MT 351 – 8032 Parts and Fundamentals

MT 360 – 80960 Parts and Fundamentals

EZ 600 – EZ Pay Lite Hardware

MT 601 – iGame Conversions

MT 610 – Player Tracking Hardware

MT 615 – Video Monitor

Enroll online at **www.igttraining.com**, or call the IGTU Administrator at 775-448-8308 for a complete IGTU brochure.

Ticket System Documentation

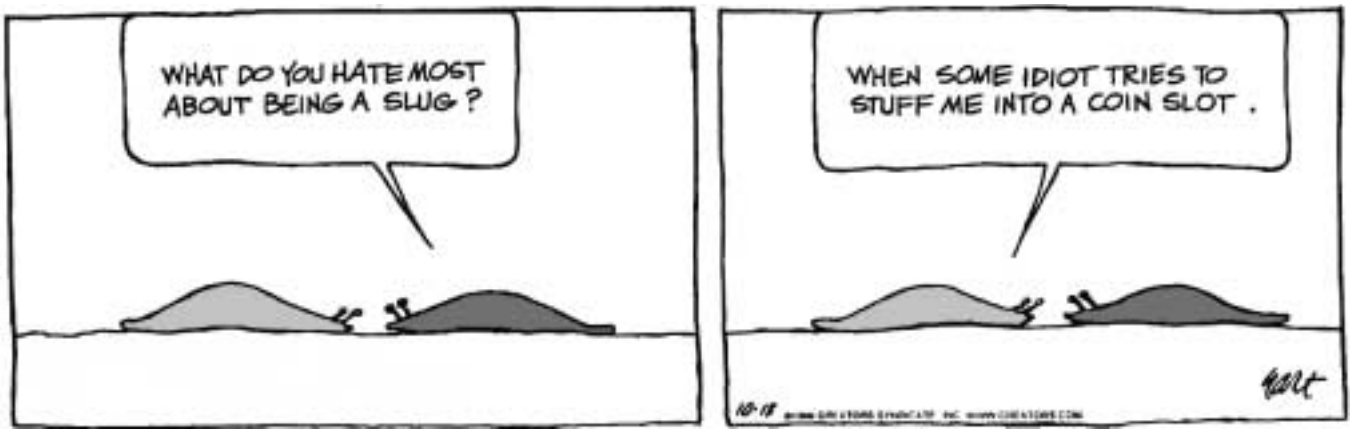
Technical documentation for the new IGT EZ Pay Ticket System is comprised of several components. You'll need all the regular machine manuals (Electronics, Parts, Software, Maintenance, etc.) to support the specific machine used in the system (Game King, Vision or S2000) plus the following manuals:

MANUAL	IGT PART NUMBER	DESCRIPTION
CVT-Plus Field Service Manual	821-255-01	Assembly/disassembly, maintenance, wiring diagrams and schematics.
EZ Pay Hardware Supplement	821-220-00	Hardware installation procedures, CVT-Plus operating instructions.
EZ Pay Ticket System: System Users' Guide	821-681-00	Operating instructions for IGT systems.

For more information on the IGT EZ Pay Ticket System, contact your local IGT representative.

Secure Count Hoppers *(continued from page 2)*

- Check the PSR (Program Summary Report);
- S-Plus machines – Check the input test to make sure the Hopper Full line is toggling. Go to the Hopper test. The Winner Paid window will have numbers in it. The window will be blank if it's not secure-count-ready.
- Vision/S2000 machines – Enter the input test. Select "Cabinet." The game will display the Hopper Level and indicate the level. Non-secure-count hoppers will display Hopper Full.
- Player's Edge-Plus machines – You may use a secure count hopper, although the machine will NOT display any errors and does not detect bowl levels. All tilts will be displayed on the LED of the secure count board.
- Game King – Currently all have one-probe bowl hoppers, but implementation of the secure count hopper (three-probe bowl) is scheduled for the near future.



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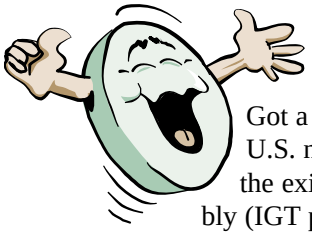
New Documentation from IGT

Title	Part Number	Release Date
Machine Specifications	821-288-06	May 2000
Quick Reference Card: IGS	821-313-02	April 2000
Quick Reference Card: Game King Software – Release 4	821-318-01	June 2000
Game Software: Game King – Release 4	821-321-01	May 2000
EZ Pay Ticket System Overview – CD-ROM	821-680-00	March 2000
EZ Pay System: System Users' Guide	821-681-00	July 2000
EZ Pay Hardware Supplement	821-220-00	August 2000
Electronic Diagrams & Parts: Game King 19" Slant-top	821-302-00	September 2000



Nickel Hitchhikers

Got a pinwheel escalator hopper with a wiper that knocks U.S. nickels off the shelfwheel as coins are trying to move to the exit area? Check the rubber material on the wiper assembly (IGT p/n 681-42-00). Move the I-beam of the rubber to position the tubular portion closer to the plates. This increases the gap between the pinwheel surface and the wiper, allowing coins to pass into the entry assembly while preventing any "hitchhikers" from tagging along.

IGT Phone Numbers

Technical Assistance

Customer Service ...**1-800-688-7890**

Software Systems TAC (SMART/IGS) **1-888-999-1190**

This newsletter is a publication of IGT. If you have a technical question relating to troubleshooting or maintenance for any IGT product you would like to see answered in ***Point-to-Point***, write to us and let us know.

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